



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,570	02/09/2004	Sudhir Govind Deshmukh	IJ0077USNA	1447

23906 7590 03/19/2007
E I DU PONT DE NEMOURS AND COMPANY
LEGAL PATENT RECORDS CENTER
BARLEY MILL PLAZA 25/1128
4417 LANCASTER PIKE
WILMINGTON, DE 19805

EXAMINER

FIDLER, SHELBY LEE

ART UNIT	PAPER NUMBER
----------	--------------

2861

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/775,570	DESHMUKH ET AL.	
	Examiner	Art Unit	
	Shelby Fidler	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Responsive Office Action

This Office Action is responsive to the Pre-Appeal Brief filed 12/14/2006. Although similar art is used in the current rejection, Examiner notes that substantial changes have been made to the interpretation of claim language. Most identifiable is the interpretation of the claims being drawn to a system rather than a single device.

Claim Objections

Claim 1 is objected to because of the following informalities: The claim is directed to a dispensing device; however, according to Applicant's own specification, the host and client computers are not located in the dispensing device (see paragraph 16 on page 6 or claim 16). Please change the claim from a "dispensing device" to a "dispensing system." Appropriate correction is required.

Claim 21 recites the limitation "said target substrate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2861

Claims 1-2, 4-6, and 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owen et al. (US 2004/0085565 A1) in view of Cook (US 6155664).

Regarding claim 1:

Owen et al. disclose a dispensing system comprising:

a client computer usable storage medium (memory 74) located in a client computer (e.g. workstation 108A), and a host computer storage medium (memory 74; paragraph 40) located in a host computer (e.g. server 110) in communication with the client computer (paragraph 24, lines 3-6 and Fig. 1);

one or more reservoirs (supplies 64) containing the dispensable compositions (paragraph 29, lines 8-10, 16-26), the reservoirs being positioned in a dispensing device (paragraph 29, lines 2-6 and Fig. 4) and having identification tags affixed thereto (memory tags 36);

means for dispensing one or more of the dispensable compositions through one or more dispensing heads (inherent to paragraph 26, lines 6-10), the means for dispensing being in communication with the client computer and the host computer (paragraph 24, lines 3-6); and

means for reading (interrogator 52) current dispensable composition information (component usage data) of the dispensable compositions disposed on the identification tags (paragraph 30, lines 16-20);

means for writing (interrogator 52) updated dispensable composition information (paragraph 17, lines 6-9) of the dispensable compositions to the identification tags (paragraph 30, lines 16-20); and

computer readable program code means for dispensing one or more dispensable compositions, the code means residing in the client computer usable storage and the host

Art Unit: 2861

computer usable storage media (paragraph 24, lines 22-24 and paragraph 25, lines 6-10), wherein the computer readable program code means comprise:

means for configuring computer readable program code devices to cause the means for reading (52) to read the current dispensable composition information (paragraph 30, lines 16-20) and to store the current information on the client computer and the host computer (paragraph 36, lines 1-11 and paragraph 40);

means for configuring computer readable program code devices to cause the client computer or the host computer to generate the updated dispensable composition information (e.g. updated drop counts) of the dispensable compositions (paragraph 39, lines 22-25 and paragraph 38, lines 3-9); and

means for configuring computer readable program code devices to cause the means for writing (52) to write the updated dispensable composition information to the identification tags (paragraph 17, lines 6-9) and to store the updated information on the client computer and the host computer (paragraph 36, lines 7-11 and paragraph 40).

Owen et al. do not expressly disclose that the means for dispensing terminates dispensing the dispensable compositions if the current information does not match with a stored dispensable composition information of the dispensable compositions stored on the client computer and the host computer; or that the means for dispensing dispenses the dispensable compositions in accordance with a dispensing program if the current information matches with the stored dispensable composition information.

However, Cook discloses a means for dispensing (printhead 24) that terminates dispensing of a dispensable composition if current information (identification number) on a

Art Unit: 2861

cartridge identification tag (memory device 14) does not match with a stored dispensable composition information (col. 10, lines 36-46); and that

the means for dispensing dispenses the dispensable composition information in accordance with a dispensing program if the current information matches with the stored dispensable composition information (col. 10, lines 36-41, 46-49).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize cartridge verification, such as taught by Cook, into the invention of Owen et al. The motivation for doing so, as taught by Cook, is to control the printer based on compatibility of the ink and the printhead (col. 1, line 53-58 and col. 2, lines 25-28).

Examiner notes the additional limitation that the host computer is of a manufacturer of dispensable compositions. However, this limitation does not add structure to an apparatus claim. Therefore, it has not been given patentable weight.

Regarding claim 2:

Cook also discloses that the reservoirs (cartridges 2) are positioned in one or more racks (carriage) of the device (col. 5, lines 38-41).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a carriage into the invention of Owen et al. as modified by Cook. The motivation for doing so, as taught by Cook, is to be able to move the printhead cartridges back and forth across a print medium (col. 5, lines 38-41).

Regarding claim 4:

Owen et al. also disclose that the identification tag is an RFID tag (paragraph 28, lines 8-11).

Regarding claim 5:

Art Unit: 2861

Owen et al. also disclose that one or more identification tag interrogators (52) comprise the means for reading and the means for writing (paragraph 30, lines 15-20).

Regarding claim 6:

Owen et al. also disclose that the RFID tag is a passive or active RFID tag (paragraph 28, lines 8-11; all RFID tags are either passive or active).

Regarding claim 8:

Owen et al. also disclose that the dispensable composition is an ink jet ink (paragraph 29, lines 16-26 and paragraph 18, lines 3-12).

Regarding claim 9:

Owen et al. also disclose that the dispensing composition is dispensed on a target substrate (paragraph 18, lines 3-7).

Regarding claim 10:

Owen et al. also disclose that the target substrate is a cellulose paper (printing media; paragraph 18, lines 3-7).

Regarding claim 11:

Owen et al. also disclose that the computer readable program code means comprise means for configuring computer readable program code devices to cause the client computer to determine an amount of the dispensable compositions remaining in one or more of the reservoirs (paragraph 36, lines 7-11).

Regarding claim 12:

Cook also discloses generating updated dispensable composition information by deducting dispensed quantities of one or more of the dispensable compositions from current quantities registered in the current dispensable composition information to arrive at updated

Art Unit: 2861

quantities of one or more of the dispensable compositions registered in the updated dispensable composition information (col. 11, lines 19-31).

Regarding claim 13:

Owen et al. also disclose that the dispensing head is a print head (inherent to inkjet printer of paragraph 26, lines 6-10).

Regarding claim 14:

Owen et al. also disclose that the computer usable storage medium (74) having the computer readable program code means is portable (memory 74 is located in a PC, which is portable; therefore, memory 74 is portable).

Regarding claim 15:

Owen et al. also disclose that the medium may also be a CD-ROM (paragraph 38, lines 11-19).

Regarding claim 16:

Owen et al. as modified by Cook do not expressly disclose that the client computer is located in one state and the host computer is located in another state.

However, Owen et al. discloses that the client and host computers may be connected over a wide area network, such as the internet (paragraph 24, lines 6-17).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art that the client and host computers of Owen et al. as modified by Cook could be located in different states or countries. The motivation for doing so, as taught by Owen et al., is to schedule a print job at any server or workstation to be printed at any printing device (paragraph 24, lines 22-24).

Regarding claim 17:

Art Unit: 2861

Owen et al. also disclose that the host computer is in communication with a plurality of the client computers (paragraph 24, lines 3-6).

Regarding claim 18:

Owen et al. also disclose that the client computer is in communication with a plurality of host computers (paragraph 24, lines 3-6).

Regarding claim 19:

Cook also discloses means to terminate dispensing of the dispensing compositions when a previously used up reservoir whose contents had been exhausted during earlier dispensing cycles is positioned in the device (col. 11, lines 5-11, 34-43).

Regarding claim 20:

Owen et al. also disclose that the dispensable composition may be an electrically conductive ink (tonor; paragraph 29, lines 16-26).

Regarding claims 21-22:

Owen et al. as modified by Cook disclose all claimed limitations except that the target substrate is a circuit board that is an RFID tag.

However, the inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. See MPEP § 2115.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owen et al. as modified by Cook, as applied to claim 1 above, and further in view of Allen (US 4973993).

Regarding claim 3:

Owen et al. as modified by Cook disclose all claimed limitations except that the reservoir is a disposable bag nested in a receptacle located in the dispensing device.

Art Unit: 2861

However, Allen discloses a reservoir that is a disposable bag (col. 4, lines 27-28) nested in a receptacle (Fig. 3) located in the dispensing device (col. 1, lines 7-8).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a disposable bag nested in a receptacle into the invention of Owen et al. as modified by Cook. The motivation for doing so, as taught by Allen, is that the bag can be replaced when empty (col. 4, lines 27-28).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Owen et al. as modified by Cook, as applied to claim 6 above, and further in view of Lawler, Jr. et al. (US 5964656).

Regarding claim 7:

Owen et al. as modified by Cook disclose all claimed limitations except that the RFID tag is disposed on an insulated substrate.

However, Lawler, Jr. et al. disclose an RFID tag that is disposed on an insulated substrate (col. 9, lines 27-29).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize an RFID disposed on an insulated substrate into the invention of Owen et al. as modified by Cook. The motivation for doing so, as taught by Lawler, Jr. et al, is to keep the tag insulated from ferrous materials, which are known to interfere with the operation of the tag (col. 9, lines 11-15).

Response to Arguments

Art Unit: 2861

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Please see the above rejection of Owen et al. in view of Cook, which discloses client and host computers in communication with a printing device.

Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shelby 2. Fidler 3/9/2007

Shelby Fidler
Patent Examiner
AU 2861



MATTHEW LUU
PRIMARY EXAMINER